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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/495,175	02/01/2000	Ana Belen Benitez	2000-0025	4490

26652 7590 03/13/2006

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EXAMINER

PRIETO, BEATRIZ

ART UNIT PAPER NUMBER

2142

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/495,175

Applicant(s)

BENITEZ ET AL.

Examiner

Prieto B.

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-52,54 and 55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-52,54 and 55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Amendment filed 01/04/2006, claims 1-24 and 53 have been canceled and claims 25-52 and 54-55 remain pending and have been examined.

Claim Rejection under USC 101

2. Claims 25-52 and 54-55 are rejected under 35 USC §101 which reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Computer implemented method claims 25-52, computer-readable medium claim 54 and computing device claim 55 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

In this case, computer-related inventions whether descriptive or functionally descriptive material are non-statutory categories when claimed as descriptive material *per se* (see *Warmerdam*, 33 F.3d at 1360 USPQ2d at 1759), falling under the “process” category (i.e. inventions that consist of a series of steps or acts to be performed). See 35 U.S.C. 100(b) (“The term process means, art, or method, and includes a new or a known process, machine, manufacture, composition of matter or material”). Functional descriptive material: “data structures” representing descriptive material *per se* or computer program representing computer listing *per se* when embodied in a computer-readable media are still not statutory because they are not capable of causing functional change in the computer (see MPEP 2106).

The method claims 25-52 do not seem to be described as being implemented in any tangible and/or limited to any tangible embodiment(s) (e.g. hardware components) in view of Applicant’s disclosure. As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

The current guidelines set forth on invalidate examiner’s previous recommendation. Further brief examination in this regard is provided below. Please see “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (signed 26 Oct 2005; Published in the OG 22 Nov 2005 <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>).

Claim Rejection under 35 USC §103

4. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

5. Claims 25-52 and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable (US 6,564,263) Bergman et. al. (Bergman hereafter) in view of International Organization of Standardization, Organization International Normalization, ISO/IEC JTC1/SC29/WG11, Coding of Moving Picture and Associated Audio, MPEG 98 (MPEG-7 Evaluation Process Document), Atlantic City, October 1998 p. 1-75 (ISO hereafter)

Regarding claim 25, Bergman teaches

identifying multimedia type or modalities in multimedia content (col 3/lines 21-36, description data type, col 12/lines 23-64, select identified type: col 19/lines 41-49);

capture (extract) multimedia object features, attributes or modalities from multimedia objects to form multimedia object descriptions and entity relation descriptions from the multimedia object (col 3/lines 37-51, col 6/lines 39-43, extract: col 19/lines 54-58);

generating entity relationships descriptions and multimedia object descriptions from a multimedia category, type or modality (develop: col 14/lines 44-48, create: col 12/lines 43-50, generate: col 19/lines 50-53);

generating “non-hierarchical entity relation graph descriptions”, i.e. general relationships descriptors among multimedia objects (spatial relationship of object within/contained, col 17/lines 10-19, object within another object, col 17/lines 49-52, including objects with spatial, temporal relationships and thus allows the description of these relationships between presentation object col 3/lines 37-51, see Fig. 5-6 and using a graphic block-based representation to describe spatial and temporal relationships between the objects col 5/lines 64-col 6/line 14) and

aggregating, incorporating or combining, i.e. integrating from the multimedia object descriptions (col 12/lines 17-26), entity relation graph descriptions (col 3/lines 27-36, 46-51, 59-62, Figs. 3-7, col 4/lines 20-30, integrated multimedia descriptions and entity relationships descriptions: col 6/lines 57-64, col 8/lines 42-67, entity-relationships, col 9/lines 55-col 10/line 10) to generate an object (“description record”);

wherein a composite object supports embedding of multimedia contents (col 7/lines 2-6, embedded hyper-linking, col 15/lines 4-17, spatial relationship of object within/contained, col 17/lines

10-19, object within another object, col 17/lines 49-52); however does not explicitly teach where descriptions are associated with communication between the objects.

ISO discloses the graphical representation of the proposed description schemes follow the Universal Modeling Language (UML) notations for descriptors (D) and description schemes (DS) used address the diversity of approaches to modeling object orientated systems combining several modeling notations, including

sequence diagrams which shows dynamic collaboration between a number of objects in particular the messages sent between objects and their temporal interrelationships (p. 71-72), Diagram (A1.2) shows an non-hierarchical entity relation graph, p. 75)

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include the from the ISO disclosure in Bergman's system because in doing so the generation of his entity relation description based on the multimedia object descriptions for multiple multimedia content types may also address the diversity of approaches to modeling object orientated systems combining several modeling notations, as suggested by ISO.

Regarding claim 26, multimedia object pyramid (hierarchy) descriptions for one of the multimedia types (Figs. 3-4 & 8, hierarchical model of multimedia object descriptions based on content type; col 8/lines 12-16, 20-67).

Regarding claim 27, the multimedia types includes image (Bergman: col 19/lines 41-49).

Regarding claim 28, separating (segmenting) each multimedia content into descriptor defining portions (segments) including content from one of the multimedia type for the multimedia content (Bergman: col 8/lines 55-58); and

generating one feature representing a feature for one of the portions by feature extraction and annotation (Bergman: feature description: col 8/lines 42-46, annotation: col 8/lines 55-58, extraction col 3/lines 37-51);

wherein the generated multimedia object descriptions comprises one feature description for one segment (Bergman; col 8/lines 20-41).

Regarding claim 29, wherein the segments are selected from the group consisting of local segments and global segments (Bergman: col 8/lines 55-58).

Regarding claim 30, feature description from the group consisting of media, semantic and temporal features (Bergman: col 8/lines 42-67).

Regarding claim 31, a feature description selected from the group consisting of data location, scalable representation and modality trans-coding (Bergman: col 9/lines 25-37).

Regarding claim 32, wherein the semantic features are further defined by one feature description selected from the group consisting who (Bergman: col 8/lines 47-50).

Regarding claim 33, temporal features are further defined by one feature description consisting of duration (Bergman: objects duration, col 16/lines 16-34).

Regarding claim 34, the applied prior art further teaches generating media object descriptions from the multimedia segment for one of the multimedia types by media object extraction processing (Bergman: capture (extract) multimedia object features, col 3/lines 37-51);

generating media object hierarchy descriptions from the generated media object descriptions by object hierarchy construction and extraction processing (Bergman: col 14/lines 44-48); and

generating media entity relation graph descriptions from the generated media object descriptions by entity relation graph generation processing (Bergman: col 3/lines 27-36, 46-51, 59-62, Figs. 3-7, col 4/lines 20-30, col 6/lines 57-64, col 8/lines 42-67, entity-relationships, col 9/lines 55-col 10/line 10).

Regarding claim 35, segmenting the content of each multimedia type in the multimedia object into segments within the multimedia object by media segmentation processing (Bergman: col 3/lines 21-36, col 12/lines 23-64);

generating one feature description for one of the segments by feature extraction and annotation (Bergman: feature description: col 8/lines 42-46, annotation: col 8/lines 55-58, extraction col 3/lines 37-51);

wherein the generated media object descriptions comprise the feature description for one of the segments (Bergman; col 8/lines 20-41).

Regarding claim 36, substantially the same as claim 30, same rationale of rejection is applicable.

Regarding claims 37-40, wherein generating media object pyramid (hierarchy) descriptions generates terminal/composite objects define as multimedia content pyramid (hierarchy) descriptions of the media object descriptions (Bergman: col 3/lines 27-36) based on relationships of media objects represented by the media object descriptions (Bergman: col 3/lines 41-51), and wherein the relationships consisting of media feature relationships, semantic feature relationships, temporal feature relationships, and spatial feature relationships (Bergman: col 6/line 1-14, 57-67, col 7/lines 10-14, 20-25).

Regarding claims 41 and 46, wherein generating media entity relation graph descriptions (Bergman: col 9/lines 55-col 10/line 10) generates entity relations graph descriptions of the media object descriptions based on entity-relationships and dependency-entity relationships of media objects represented by the media object descriptions (Bergman: col 14/lines 45-48, col 19/lines 50-53),

wherein the relationships are selected from the group consisting of media feature relationships, semantic feature relationships, temporal feature relationships and spatial feature relationships (Bergman: col 6/lines 1-14, 57-67, col 7/lines 10-14, 20-25).

Regarding claims 42-45, wherein generating multimedia object pyramid (hierarchy) descriptions generates multimedia object hierarchy descriptions of the multimedia object descriptions based on media content relationships of multimedia terminal/composite objects represented by the multimedia object descriptions (Bergman: col 11/line 27-33, inter-feature relationships: col 19/lines 50-53, inter-object relationships, col 15/lines 10-15); based on temporal, spatial feature relationships of multimedia objects (Bergman: col 15/lines 10-15); and semantic feature relationships of multimedia object (Bergman: col 6/lines 58-64).

Regarding claim 47, receiving and transcoding (encoding) the multimedia object descriptions into encoded description information (Bergman: col 7/lines 20-24), and storing the encoded description information as one (description) record (Bergman: col 8/lines 55-58).

Regarding claim 48, this claim combines limitation(s) substantially the same as claims 25, and 47, same rationale of rejection is applicable

Regarding claims 49 & 50, the encoding comprises binary encoding (Bergman: col 13/lines 31-33).

Regarding claims 51 & 52, the encoding comprises the extensible Markup Language (XML) encoding (Bergman: col 14/lines 4-18).

Claim 53 (canceled)

Regarding claim 54 this claim comprises the computer-readable medium storing instructions for performing substantially the same steps/acts discussed in the computer-implemented method on claim 25, same rationale of rejection is applicable.

Regarding claim 55 this claim comprises the computing device including the modules configured to perform substantially the same steps/acts discussed in the computer-implemented method on claim 25, same rationale of rejection is applicable.

Response to Arguments

6. Applicant's arguments with respect to at least claim 25 have been considered but are moot in view of the new ground(s) of rejection.

7. Regarding claim rejection under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. In this case, according to these provided guidelines there has been some clarification as to how to interpret the statutes in view of recent court decisions.

"d. Machine Implemented Test: Whether a claim recites a machine implemented process is *not* determinative of whether that process claim is statutory. See, e.g., *Benson*, 409 U.S. 63, 175 USPQ 673 (finding machine-implemented method of converting binary-coded decimal numbers into pure binary numbers unpatentable). However, using the machine implemented test, the claim would be found to be statutory. The Federal Circuit also recognizes that the *fact that a nonstatutory method is carried out on a programmed computer does not make the process claim statutory*. *Grams*, 888 F.2d at 841, 12 USPQ2d at 1829 (claim 16 ruled nonstatutory even though it was a computer-implemented process).

In addition, the Federal Circuit has recently noted that a "structural inquiry is unnecessary" when determining whether a process claim is eligible for patent protection. *AT&T*, 172 F.3d at 1359, 50 USPQ2d at 1452. Thus, a finding that a claim fails to *recite a computer-implemented process* is not determinative in whether that claim passes muster under Sec. 101. Therefore, USPTO personnel should

no longer rely on the machine implemented test to determine whether a claimed invention is directed to statutory subject matter.”

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Copies of Non-Patent Literature documents cited will be provided as set forth in MPEP§ 707.05(a):

A. Geometry Coding and VRML, Taubin, G., et. al., IEEE, vol. 86, No. 6, June 1998, IEEE 0018-9219/98, P. 1228-1243.

Taubin, G., et. al. discloses a scene graph description associated with communication between messages exchanged between multimedia objects called events over a connection between them called routes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
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Beatriz Prieto
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